



# Grinding Solutions

Resin bond  
Vitrified  
Metal bond  
Electroplated  
Lapping & polishing  
PCD & PCBN



**High Grade, High Precision & Advanced**

**Superabrasive Products | Special Equipments | Inspection Instruments**



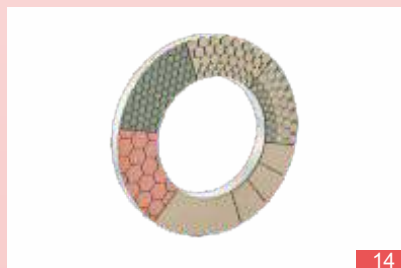
## About Us

Here at Nura Technologies, we care about the customer more than anything else. We care so much that when you need to choose the right set of grinding wheel, we deliver the set of choices that matter to your production, your workforce and your bottom line. With a combined experience of more than 45 years in the precision tools and grinding industry, every single attempt of ours is focused towards improving productivity by eliminating dust, noise, wastage and yield maximum benefit to all our customers. We curate special solutions for our customers and if we don't have a solution yet, you can count on us for developing that solution tomorrow. Choosing Nura will assure you of not just the best quality, but also the perfect pricing along with on-time delivery, every single time.



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The resin bond products have the features of good self-sharpening, sharp cutting, high efficiency, low roughness of work piece surface, few heat generating and without burning workpiece. They are suitable for high efficiency and precision grinding of most workpieces. Nura Technologies is able to provide resin bond superabrasive grinding wheels according to the standard GB/T6409.2-1996. The diameter range is  $\phi 6 \sim 900\text{mm}$ ; the thickness range is  $0.07 \sim 520\text{mm}$ ; the grit size range is  $40/50 \sim W3.5$ . We can also design and make nonstandard grinding wheels according to customers' requirements.

## Application

Resin bond diamond products: mainly used for machining tungsten carbide, ceramic materials, magnetic materials, silicon materials, thermal spraying alloy materials and so on.

Resin bond CBN products: mainly used for machining high speed steel, cast iron and so on.



Straight cup, tapered cup and dish grinding wheels



Resin bond grinding wheels



Centerless grinding wheel



Resin bond grinding disc





Vitrified products own the features of sharp cutting, high efficiency, long life, less heat and jam generated in grinding, easy control of the precision and easy dressing.

Nura Technologies is able to provide vitrified superabrasive grinding wheels according to the standard GB/T6409.2-1996. The diameter range is  $\phi 3 \sim 1600\text{mm}$ ; the thickness range is  $0.8 \sim 300\text{mm}$ ; the grit size range is  $60/70 \sim W3.5$ . We can also design and make nonstandard grinding wheels according to customer's requirements.

### Application

Vitrified diamond products: Mainly used for machining tungsten carbide, PCD, PCBN, ceramic, cermet, etc

Vitrified CBN products: Mainly used for machining cast iron (alloy cast iron, chilled cast iron, nodular cast iron, etc.), steel(45#, 55#, 20Cr, etc.).



Vitrified CBN grinding wheels



Vitrified CBN grinding wheel



Vitrified CBN grinding wheel for camshaft



Vitrified grinding wheel



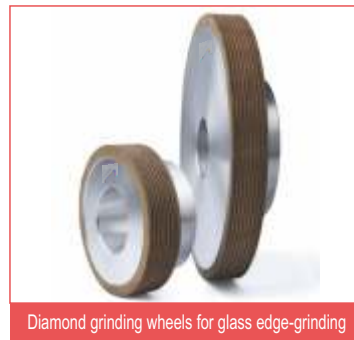
The features of the metal bond products are high efficiency, good selfsharpening, high stock removal, strong hold and good abrasion resistance.

Nura Technologies is able to provide metal bond superabrasive grinding wheels according to the standard GB/T6409.2-1996. The diameter range is  $\phi 6 \sim 500\text{mm}$ ; the thickness range is  $0.05 \sim 300\text{mm}$ ; the grit size range is  $30/35 \sim W3.5$ . We can also design and make nonstandard grinding wheels

### Application

**Metal bond diamond products:** Mainly used for machining quartz crystal, tungsten carbide, ceramics, glass, composite, sapphire, ferrite, refractory, thermal spraying materials and so on.

**Metal bond CBN products:** Mainly used for machining high speed steel, tool steel, mould steel, stainless steel, titanium alloy and so on.



Diamond grinding wheels for glass edge-grinding



High Precision Superthin Cutting Blades Unit



Diamond sintered dressing roller



Metal bond grinding wheels



## Electroplated grinding wheels

The electroplated grinding wheels own characteristics of high grain density, sharp grinding, high efficiency, good precision, without dressing etc. The product can be made into various shapes and they are suitable for special complicated profile, super-thin, especially small and other form grinding which have strict requirement on geometry shape and dimension. Therefore it improves the process efficiency and a lot of tools which are difficult to process with other methods can be solved.



Electroplated CBN grinding wheels for CNC gear grinding



Diamond Dressing roller for linear guide

## Diamond dressing rollers

Nura Technologies can produce high precision dressing rollers with inner galvanizing (UZ) methods. For example, we can supply complicated multi-teeth rollers with small radius R0.1 and teeth distance less than 1mm and heavy grinding rollers with height more than 200mm and height diameter ratio bigger than 1.5. This product is the best dressing tool for high precision and high efficiency form grinding.

Our dressing rollers produced with outer galvanizing methods are used for dressing vitrified CBN grinding wheels and internal mounted points. Its features are high dressing efficiency and good straightness



Diamond Dressing roller for tap



Diamond Dressing roller for V-shape guide





Nura Technologies has Many series of polishing products have been developed, such as diamond compound, diamond slurry, polishing powder, conventional compound and fiber sticks. At present, the products have been widely used in many fields at home and abroad.

### Comparable chart for grit size and color of diamond compound

Spec	W0.25	W0.5	W1	W1.5	W2.5	W3.5	W5
Water- soluble	colorless	pink-purple	tender yellow	brownish-yellow	rose color	vermeil	sky blue
Oil-soluble	colorless	buff	yellow	grass green	green	turquoise blue	blue
Spec	W7	W10	W14	W20	W28	W40	
Water- soluble	purple	gray	black	grass green	cyan	straw yellow	
Oil-soluble	nacarat	deep red	vermeil	purple	gray	black	

### Comparable chart for specification and grit size of fiber sticks

Type	Spec (mm)	comparison of grit size and colors
1004	100×4×1	800 - red 600 - yellow 400 - green 320 - blue 280 - black
1006	100×6×1	
1008	100×8×1	
1010	100×10×1	



### Diamond slurry

Diamond Slurry is widely used for polishing and lapping fine ceramics, integrated circuit chip, ferrite magnetic head, quartz plate, cemented carbide alloy, optical lenses, copper and so on. It owns advantage of fast heat transfer, easy cleaning, poison less and harmless.

We can also offer slurry of oxide silicon, silicon carbide, cerium oxide, alumina oxide and so on.

Package: in bottles, 500ml or 1000ml.



### Synthetic diamond micro powder

Synthetic diamond micro powder is mainly used to make the polishing pads, polishing disk, diamond compound, diamond pellets, PCD, diamond wire dies and used for polishing ceramics, glass, sapphire, electronic devices and so on.



W80 W60 W50 W40 W28 W20 W14 W10 W7.0 W5.0 W3.5 W2.5 W1.5 W1.0 W0.5 W0.25



PCD & PCBN are polycrystalline structure which overcomes the fault of single crystal. Meantime, the super hardness and good heat conductivity of diamond and CBN make PCD& PCBN tools high rigidity, good wear resistance and cutting performance.



PCD & PCBN cutting tools



PCD & PCBN Inserts



Underprop

## Construction tools

Diamond saw blades, diamond drills, and TSP and other superabrasive products made in our institute are widely used in building materials processing industry.



Diamond die blanks for wire drawing



Thermally stable crystalline (TSP)



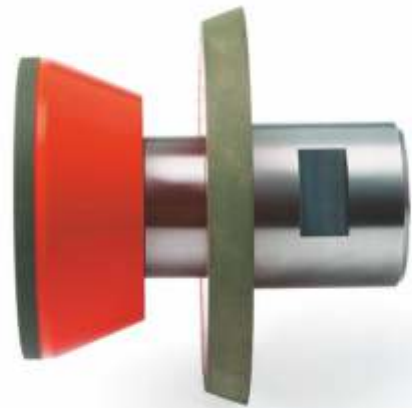
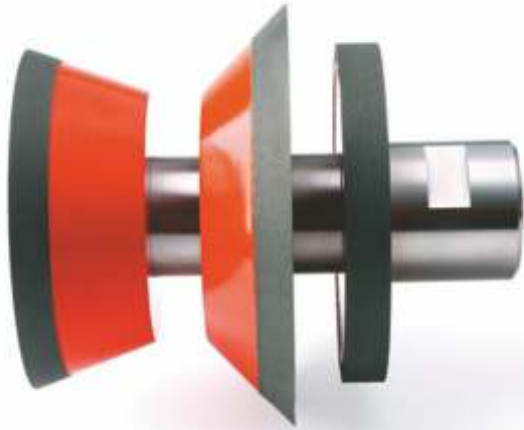
Diamond crystalline nozzle



Diamond saw



Diamond drills



### Main features

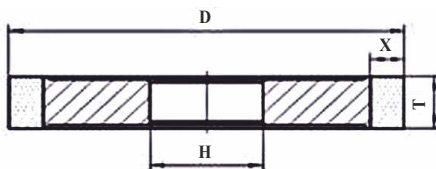
- Perfect processing quality
- High efficient grinding with fast feeding
- Good wear resistance and shape keeping

### Application

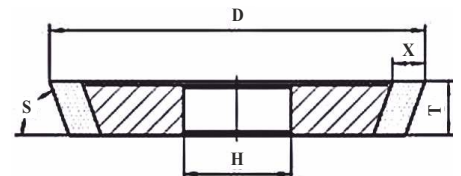
Mainly used for grinding digital controlled cutting tools such as tungsten carbide, high speed steel, stainless drill, mill and rimer.

### Models and profile sketches

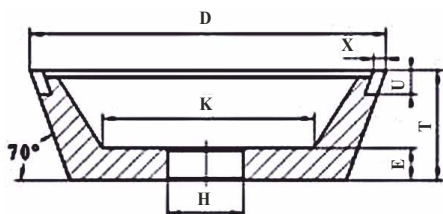
1A1



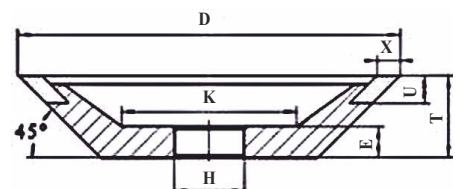
1V1



11V9



12V9



## Main features

High grinding efficiency, good shape keeping Good surface quality and consistency of dimension of the workpiece High durability and long life span

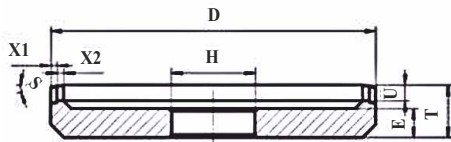
## Application

Mainly used for top, face and side grinding the circular saw blades and band saws made of tungsten carbide, high speed steel, cermet and PCD; processing woodwork drills and mills.

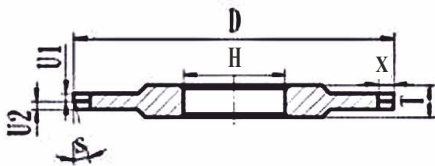


## Models and profile sketches

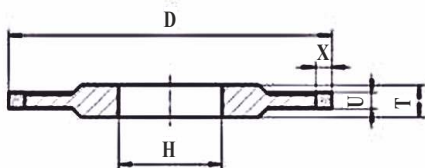
11AA9



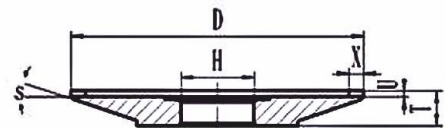
14AA1



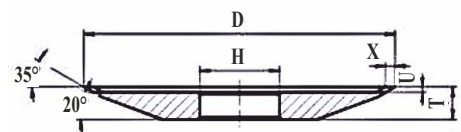
14A1



4A2



4V2





### Main features

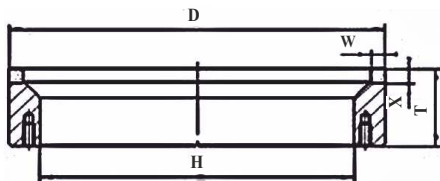
- Good surface accuracy retention
- High stock removal efficiency
- High durability, long life span
- Good edge quality of inserts

### Application

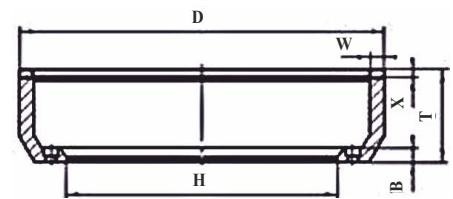
Mainly used for precise edge grinding indexable inserts made of tungsten carbide, ceramics, cermets and CBN.

### Models and profile sketches

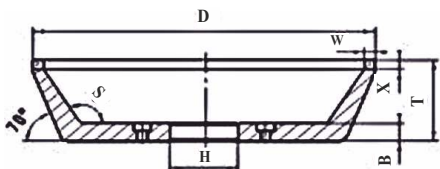
6A2T



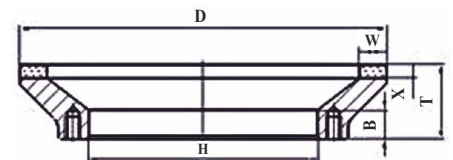
6A2M



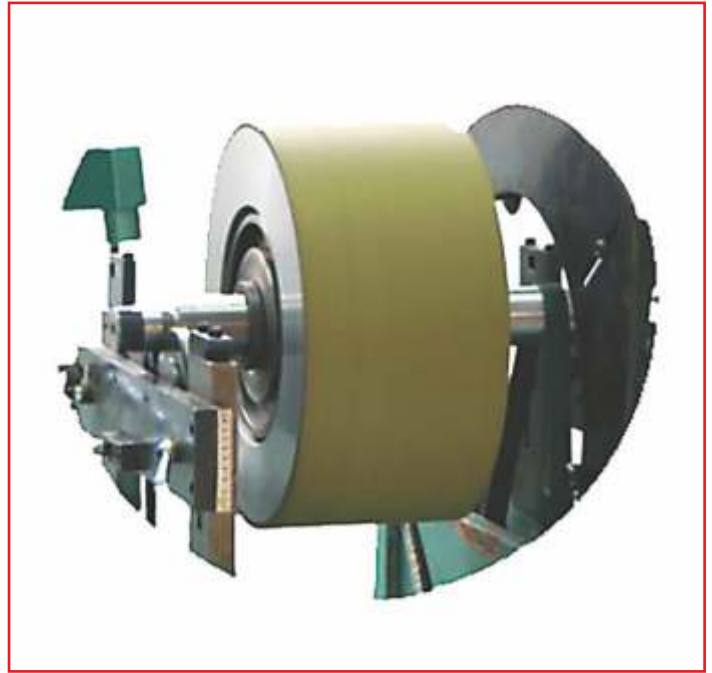
11A2B



12A2T







## Main features

Efficient batch external grinding

High roundness and cylindricity of workpiece and good consistency of dimension

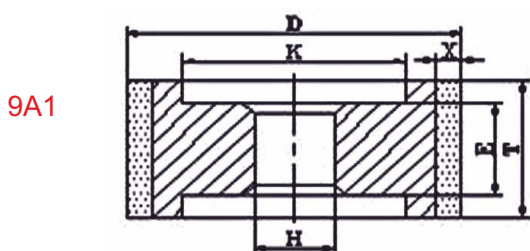
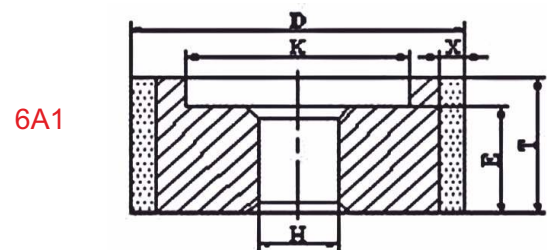
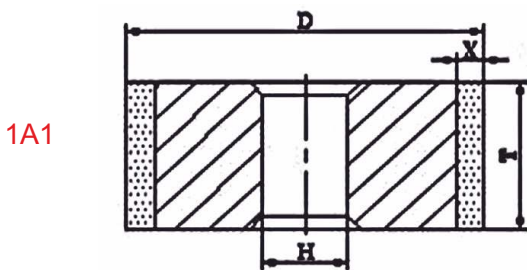
Good surface finish after fine grinding

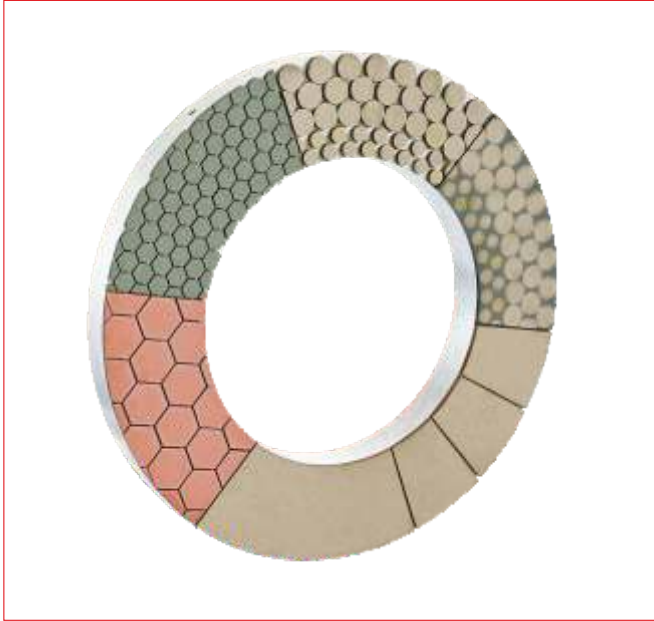
Used for rough grinding, semi-fine grinding and fine grinding

## Application

Mainly used for grinding tungsten carbide, ceramics, magnetic material, stainless steel bar, PCD and PCBN composites.

## Models and profile sketches





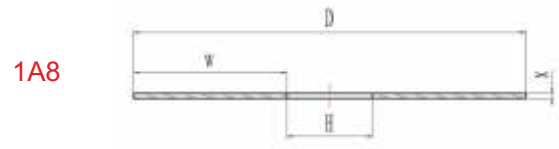
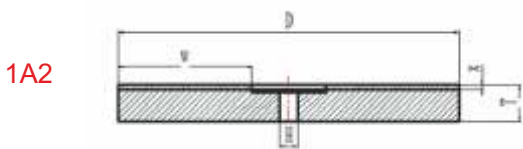
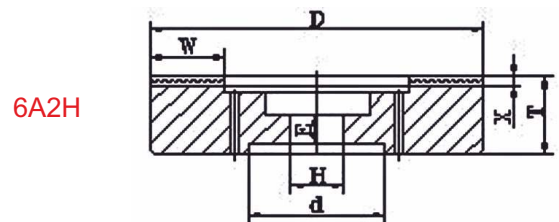
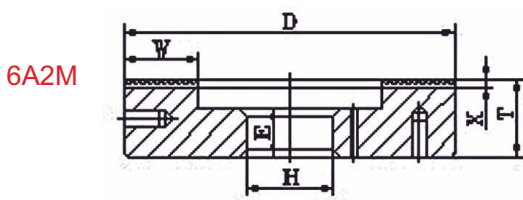
### Main features

Efficient batch double and single side grinding / High durability and long life span / High parallelism and flatness of workpiece / Good surface quality

### Application

Parts of Air-conditioning compressor: cylinder block (grey cast iron or nodular cast iron), sleeve (alloy cast iron), slide (high speed steel) / Hydraulic parts: vane of vane pump (high speed steel) / Tungsten carbide cutting tools: cutters (YJ hard alloys) / Magnetic material: magnetic soft ferrite material etc. / Artificial gem: mainly used for processing glass, crystal, zircon and spinel and so on.

### Models and profile sketches





### Main features

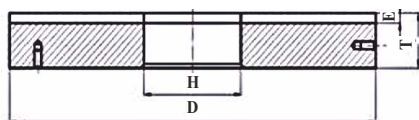
- High workpiece precision
- High efficiency
- Low processing cost
- Wide applications
- Clean working environment

### Application

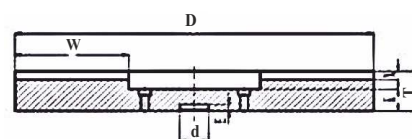
Mainly used for processing key parts such as hydraulic parts, sealing components, air-conditioning compressors parts and tungsten carbide.

### Models and profile sketches

1A2T



6A2B



### Sample Mark of Grinding Wheel

Sample Mark: 6A2H 150×38×40×15×5 D400 B (V) 100

Specification D×T×H×W×X					Abrasives		Bond		Concentration
(D) Outer Diameter	(T) Thickness	(H) Inner Diameter	(W) Width	(X) Height	(D) Code	Grit Size	B	V	
150	38	40	15	5	Diamond	400	Resin	Vitrified	100



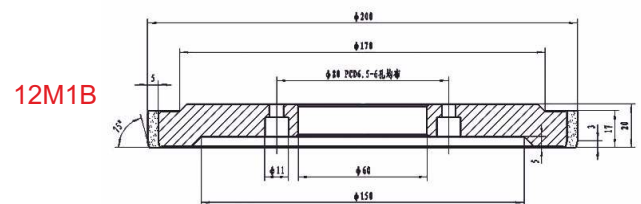
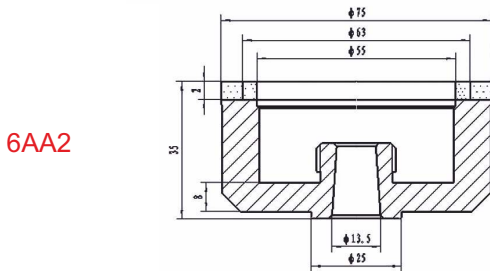
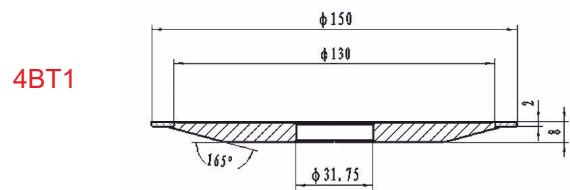
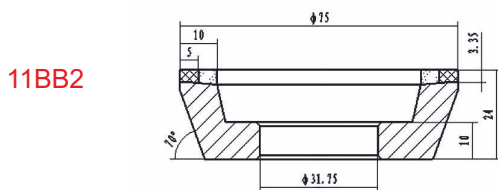
### Main features

- Perfect blade quality
- Perfect abrasion resistance and long life span
- Good maintenance of arc shape and cusp of grinding wheel

### Application

Mainly used for the grinding of carbide, stainless PCB milling cutter and drills.

### Models and profile sketches







## Main features

High efficiency / High workpiece precision / Good workpiece consistency / Long life span

## Application

Hydraulic tappet of automobile motor / Pump stator of automobile / Roller, cylinder, flange cover of aircondition compressor / CVJ ball-cage, inner and outer raceway.



## Electroplated slot grinding wheels

## Main features

Sharper grinding  
Good chip removal ability, not easy to burn work piece  
No need to dress

## Application

Mainly used for form grinding of air conditioning compressor and automotive traversing mechanism and outer raceway.



This grinding wheel is a kind of grinding tool for the grinding of the part of the reflective glass which needs to be bonded, thus assuring the bonding strength of the hollow glass.

The grinding wheels by Nura Technologies can be used for the automatic and manual equipment from China and other countries. After being grinded by the wheel, the surface of the glass is smooth and without any residue or scratch. Our grinding wheel is with internationally



Common specification: P200×8/10/11/12/13/14/15/20/25/30 ×76.2mm, P57×10/12/13×6mm (the height of the wheels and other specifications can be manufactured according to customers' requirements).

Models	Schematic diagram	Models	Schematic diagram
1A1R		6A2H	
1E1		9A3	
1EE1		11A2	
1F1		11A9	
1FF1		11B2	
1L1		11V2	
3A1		12A2	
4A2		12V1	
4B9		12V2	
4BT1		14E1	
6A2		14EE1	



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